



## CITY COUNCIL REGULAR MEETING MINUTES November 14, 2006

**Mayor Judie Hammerstad** called the Regular City Council meeting to order at 7:05 p.m. on November 14, 2006, in the City Council Chambers, 380 A Avenue.

**Present:** Mayor Hammerstad, Councilors Turchi, McPeak, Groznik and Graham; Councilors Peterson and Hoffman were excused; Councilors Elect Jordan, Johnson, Hennagin

**Staff Present:** Doug Schmitz, City Manager; David Powell, City Attorney; Robyn Christie, City Recorder; Joel Komarek, City Engineer

**Others:** **Intergovernmental Water Board Commissioners:** Patrick Carroll (representing Durham), Dick Winn (representing King City), Bill Scheiderich (member at-large); **Tigard City Councilors:** Mayor Craig Dirksen, Sydney Sherwood, Sally Harding, Nick Wilson, Tom Woodruff (also Tigard's IWB representative), Gretchen Buehner, Councilor Elect; **Tigard Staff Members:** Craig Prosser, City Manager; Dennis Koellermeier, Public Works Director; Tim Ramis, City Attorney; **Consultants:** Mark Knudson, Clark Worth

---

### 3. STUDY SESSION

#### 3.1 Joint Meeting with the Tigard City Council and the Intergovernmental Water Board

**Mayor Hammerstad** provided the introductions. In May 2005 the City of Tigard approached Lake Oswego because it was interested in having a stable source that would satisfy its long-term water interests. The policy considerations would be discussed at this meeting, but no decisions would be made. Each entity hoped to gather information from this meeting and develop an understanding of complementary needs. Tigard desires to secure a long-term water source, and Lake Oswego has an apparent surplus of available water from its water rights in the Clackamas River. Lake Oswego has a high need for infrastructure improvements in the system the cost of which was considerable. If the costs were shared over a larger base, then the improvements would be more affordable. Tigard would not have to seek another water provider and would gain some infrastructure on its own. Lake Oswego needed certainty regarding the access of adequate water supplies and was responding to recent legislation that required Lake Oswego to use its water right or lose it in the future.

**Mr. Komarek** reported that the Cities of Tigard and Lake Oswego entered into an intergovernmental agreement (IGA) to jointly fund the study effort that began June 2006. The preliminary findings of that effort were presented at this meeting. When he and Mr. Koellermeier discussed the scope of work they identified objectives they felt needed to be addressed. First and foremost it was important to talk about securing long-term supplies for Lake Oswego and possibly Tigard. The intent was to identify a preferred supply scenario, its feasibility and costs, and necessary facility improvements and institutional arrangements that would allow for water to be shared between the two cities.

The Lake Oswego water supply intake was built in the late 1960's and was located about a mile upstream from the confluence of the Clackamas and Willamette Rivers. The water was pumped through a 27-inch transmission main under the Willamette to the treatment plant located in West Linn. The initial size of the plant was approximately 11 mgd. The water was treated to drinking

water standards and pumped through another transmission main to the Waluga Reservoir on the western edge of the service area. The pipeline from the intake to the treatment plant was about 14,000 feet, and the line from the plant to the reservoir was 20,000 feet. In 1980 the treatment plant was expanded to its current capacity of 16 mgd. Water was presently supplied to Lake Oswego residents, a number of special districts located within the urban service boundary (USB), the City of Tigard, and several small subdivisions located in the City of Portland.

Some of the drivers from Lake Oswego's perspective had to do with a number of infrastructure improvements needed due to age and demands within the service area. It seemed like an opportune time to consider a partnership between Lake Oswego and Tigard. Even without such a partnership the in-City demands were quickly approaching the current treatment capacity, so it was important to start the planning effort. The major infrastructure was 40 years old and there were vulnerabilities related to the single pipeline crossing the Willamette. The infrastructure needs will be costly, so a partnership could ameliorate some of the rate impacts by spreading those costs over a larger base. HB 3038 presented most entities holding water permits with some uncertainty as to whether or not they would ultimately be able to develop all the water under those permits.

Lake Oswego and Tigard have both been members of the Regional Water Providers Consortium since 1995. That effort recognized the benefits of a regional system of transmission mains and interconnected water sources for reliability and opportunities to reduce environmental impacts that certain sources were exhibiting. This was an opportunity to explore regional benefits that had been discussed at the Consortium for a number of years.

**Mr. Koellermeier** described the general boundaries of the Intergovernmental Water Board service area that represented 55,000 people. It was bounded by Hwy 217, the Tualatin River, Scholls Ferry Road, and the urban growth boundary (UGB). For all practical purposes Tigard acquired its water on the spot market which was sometimes a tenuous position. The primary water source at this time was the City of Portland under a ten-year service agreement. That however did not provide all the water needed by Tigard, so water was purchased from several other sources to meet peak usage demands. Tigard was a partner in the Joint Water Commission, but it was structured in such a way that it only allowed the City to access surplus capacity from the other partners. As those partners grew, the capacity was less available. The group was working on a major water supply effort with the Hagg Lake Reservoir Complex which was very expensive and complicated. Tigard would be the farthest customer, and transporting water was very expensive. Shorter transmission generally was a cost-saving factor for any water provider. The City of Tigard had enjoyed a wholesale relationship with Lake Oswego, and before 1994 most of the water in the Tigard District was obtained from the Lake Oswego system. A good share of the infrastructure was designed around that model.

Tigard was involved with aquifer storage and recovery (ASR) which was a technique whereby the City purchased water during the winter when it was plentiful and injected and stored in wells for use in the summer. It was not the end all of Tigard's problems, but it was a good stop gap measure for meeting summer demands. Tigard was one of the founding members with water rights on the Willamette River. It was the first community that went through the process and ended up with a charter amendment that required a vote of the people to approve use of Willamette River water. Wilsonville has been using the Willamette River for three years with excellent results.

It was important for Tigard to make some decisions. The City was growing while at the same time water sources were scarce. The City wanted to be involved at the ownership level so there would be some certainty and to be able to use the financial mechanisms at hand. Ownership would put part of the financial burden into the SDC structure. Currently Tigard's source issues had to be 100% rate funded. When Tigard negotiated 10-year increment contracts with Portland or other large suppliers the rates were structured in such a way as to ease the cost to the retail customers. Buying water was not a good position to be in because costs were driven up over

time. Finally was the issue of timing. Tigard just signed a 10-year agreement with Portland, so it would need to decide whether or not to stay with Portland. Although 10 years may seem like a long time, it takes a long time to develop capital projects.

**Mr. Koellermeier** reported that Tigard had completed the population and demand forecast, evaluated the condition and established needs over time, identified multiple alternatives, identified the permitting and regulating requirements, developed a draft communication plan, and discussed potential governance options that would allow multiple public agencies to work together. If directed, staff would work on finalizing the costs of the improvement options, complete the financial analysis and rate impacts, refine scenarios, costs, and rates for the final document level, prepare a report, and reconvene this group for further direction. The schedule was ambitious, and Mr. Koellermeier anticipated having a draft report by the beginning of the year and reconvening this group in January or February to discuss the options and receive guidance.

**Commissioner Scheiderich** asked if Lake Oswego's 38 mgd right were affected by any other superior rights or in stream flow reservations.

**Mr. Komarek** replied in stream water rights varied depending upon the time of the year. Half of the water permit was certificated but it was in its entirety senior to the in stream water right. There was also a junior permit to the in stream water right. In terms of Western Water Law, the Appropriation Doctrine, and first in time, first in right says if the permit was senior to the in stream water right it took precedence in terms of use. The larger 32 mgd right was senior, and the smaller 6 mgd right was junior.

**Commissioner Scheiderich** asked how far the water reached by gravity or if was it pumped.

**Mr. Komarek** replied all of the water was pumped. To reach Tigard from Lake Oswego the water would be pumped two times to get to the Bonita Station and then once again to get into the distribution system.

**Commissioner Scheiderich** asked the status of the other studies including Hagg Lake and the feasibility study of the pipeline to supply Tualatin Valley Water and Beaverton from Wilsonville.

**Mr. Koellermeier** responded all these data points would come together in a relatively short period of time. In the first few months of 2007 all three of those efforts would at least be in a draft stage. From Tigard's perspective it would need to make some decisions about staying in all three options or winnow out of some.

**Commissioner Carroll** asked the vulnerability to the federal government's requiring a certain in stream flow. Would everyone's water rights be reduced?

**Mr. Komarek** replied the in stream water right was established for the protection of fish and other beneficial uses. He was not aware that the Water Resource Department (WRD) had any plans to seek additional in stream rights. The senior permits would take precedence.

**Commissioner Carroll** understood endangered species protection would trump all water rights.

**Mayor Dirksen** asked the size of Lake Oswego's service district.

**Mr. Komarek** responded the City service area was about 33,000 plus an additional 3,000 to 4,000 customers in areas surrounding the City limits.

**Mayor Dirksen** understood the 16 mgd treated today was in excess of what was needed based on Tigard's uses which in the summer peaked at about 13 mgd.

**Mr. Komarek** replied the City was approaching 88% of its treatment capacity. There was one peak day last summer of 14 mgd.

**Councilor Graham** asked if Tigard had based its projections on full development of Bull Mountain.

**Mr. Koellermeier** replied Bull Mountain was in the planning area and was a separate chapter of the master plan.

**Mr. Knudson** was with Carollo Engineering and had been involved with regional water issues for more than 20 years. They had looked at what it would take in terms of infrastructure, costs, and governance as outlined in the scope of work. He discussed the water needs both today and into the future. The key issue was recognition that a decision needed to be made. Lake Oswego was in a position of either going it alone or potentially forming some kind of agreement. In the go it alone scenario Lake Oswego would be faced with making some significant improvements to its existing system. There were some shortcomings with the current system as it was near the end of its design life in some cases, so there were deficiencies to be corrected. Additionally, the system was very close to capacity that could potentially compromise operational reliability. In the case of the joint entity some kind of expansion would be required, so one of the challenges of this project was how one might go about creating a deal that allowed expansion to occur and determining the logical degree to which the joint facilities would be expanded to maximize benefits.

As a first cut, they looked at the service population. It was determined where the entities were in 2005 and where the area would be in 2030 by looking at build out at saturation development. In most cases saturation was being approached in 2045 taking in just the Lake Oswego retail customers. Then Stafford and other wholesalers within Lake Oswego's USB were added excluding Tigard. Right now Lake Oswego was serving 33,000. At build out of both entities the population would be 146,000.

**Councilor Turchi** asked if the current zoning was used to estimate build out.

**Mr. Knudsen** replied it was a saturation of all available land based on the current zoning.

**Councilor Turchi** understood that if he owned a house in the middle of a subdividable lot that it would be considered two housing units for the purpose of build out. This assumed that every piece of property was divided into its smallest buildable unit.

**Mr. Knudsen** explained there was a range of assumption that went along with that having to do with the amount of land preserved for open space and things of that nature. Build out was really a range of numbers, and these figures were what he believed would be the most likely worst case scenario.

**Councilor Turchi** noted that Lake Oswego had discussed density at about 1/3 of the actual zone. He suggested there should be some thought about the need to plan for the actual zone density.

**Mr. Knudsen** responded the attempt was to offer estimates based on the maximum demand in the future to ensure supply.

**Councilor-elect Buehner** asked what kind of relationship the City had with its customers and could those agreements be terminated.

**Mr. Komarek** replied the IGAs were for surplus supply. For the most part the entities were on well supplies and purchased water from Lake Oswego during the summer.

**Councilor Groznik** stated there were some properties in the City, such as Foothills and Avamere, that could have a greater population than current zoning. He was not getting worst case out of this.

**Mr. Knudsen** understood the concern, but no one could predict the future. The figures reflected the current situation or what was known and there might be places where density was higher in the future. They hoped there would be some give and take between the opportunity for preserving open space that has yet to be designated and that not every acre would be developed to its maximum capacity. The population projections were translated into water demands. He looked at what Lake Oswego was currently using and its per capita consumption and did the same thing for Tigard. That was averaged over the past several years and applied to the

population projections to estimate demand into the future. Numbers were represented down the last 100,000 mgd. These were projections and forecasts but showed what the overall demands would be. The numbers to 2030 were based on Metro's population projection, and after that the build out number was used.

**Councilor Turchi** asked why Tigard's per capita water consumption was substantially lower than Lake Oswego's.

**Mr. Knudsen** thought part of it had to do with density and more multi-family residential. There was less Greenspace in Tigard, and part of it was likely a lifestyle choice.

**Mr. Komarek** agreed Tigard had more density and there were lifestyle choices to consider such as green lawns and open spaces. Water as a commodity seemed cheap.

**Mr. Knudsen** said it was important to recognize what he said in terms of how the demand numbers were developed. Recent per capita demand consumption was used in projecting the future. Those per person consumption rates would be the same into the future, and that may be an extremely conservative assumption meaning the numbers were likely on the high side in terms of per capita projections.

**Councilor McPeak** noted the assumption at build out did not include any change in conservation efforts. She thought some additional conservation could be assumed but understood this was the worst case.

**Mr. Knudsen** replied that was correct. There was a long discussion at the staff level, and the challenge was that there were a lot of uncertainties beyond just per capita consumption because of conservation. The other wild card was something like global climate change and how that would influence the numbers. There was a band of uncertainty with these numbers, but there needed to be a reference point for planning. Another uncertainty had to do with Lake Oswego providing service to the Stafford Basin.

**Councilor Graham** asked if the projections took into account growth in Happy Valley and Damascus placing additional demands on the Clackamas River.

**Mr. Knudsen** replied the growth was taken into account in terms of water rights. Lake Oswego currently had up to 38 mgd of water rights, so that was treated as available capacity to serve future demands. He had not allocated any demands on these projections for serving those entities on the east side of the Willamette. They were currently developing these same types of agreements through the North Clackamas Water Commission that allowed Happy Valley, Sunrise Water Authority, Gladstone, and Oak Lodge Water to pool their resources and water rights. He reviewed the four identified scenarios: (1) Lake Oswego does nothing and stays with the current infrastructure capacity of 16 mgd; (2) Lake Oswego's ultimate build out demand was projected at 24 mgd including the current wholesalers, so the logical scenario would be that Lake Oswego planned to meet all of its future demands and build the infrastructure accordingly without Tigard's being in the picture; (3) Lake Oswego had 32 mgd in senior water rights which was highly valuable and could be used to serve both Lake Oswego and Tigard in a joint supply scenario; and (4) was the same except the senior water rights of 32 mgd plus the junior water right of 6 mgd for a total of 38 mgd.

In the do nothing scenario, Lake Oswego would not have to spend a lot of money up front. However, a lot of the infrastructure was older than 40 years and rapidly approaching the end of its design life. Some capital costs would be required to address demand issues. Based on those projections and the growth curves the capacity of the existing infrastructure would be exceeded within the next three years. Given that there were high operational risks Lake Oswego could be in a situation that if pumps went out or if systems failed or the pipe broke the City would not be able to meet the full capacity for some period of time. That was the worst case scenario, but the City was near redline. Under this scenario, because the water was consumed by Lake Oswego

and its current wholesale customers, there was essentially no reliable capacity available for Tigard.

In scenario #2 the system would be expanded to 24 mgd which was the ultimate demand of Lake Oswego and its wholesale customers. Under that scenario Lake Oswego's needs were met with some surplus capacity available for Tigard. As Lake Oswego grew, the Tigard capacity would be reduced, but presumably Tigard could be served with available surplus. Given the additional capacity and built in redundancy the risk of failure would be lower. The bad news was that it was a small piece relative to what Tigard's demands were, so Tigard would need some other base supply upon which to draw. Additionally 14 mgd of the existing water right would be left on the table and was in jeopardy of being lost through the HB 3038 process or some other environmental considerations. Given the fact that Tigard was looking at another primary supply, he assumed Tigard would not be an owner in this scenario. There would be no redundancy other than Lake Oswego's primary supply on the Clackamas River.

Scenario #3 would capture the full 32 mgd senior water right through a joint Lake Oswego/Tigard agreement. Now that Tigard would realize a firm supply beyond Lake Oswego's needs it was assumed Tigard would become an owner or partner in the process. This was important to the financial modeling that would be discussed next. In the shared ownership scenario the capital costs for the improvements and the annual operating costs were shared by both entities and spread over a wider population base. Lake Oswego's demands were met, and there was a minimum of 8 mgd of firm capacity available for Tigard to meet most of its needs. He pointed out the Bonita pump station and the Waluga Reservoir where there was a major interconnect between the two systems that provided some redundancy. In the event that Lake Oswego lost the Clackamas supply or had diminished capacity for some reason conceivably there was an opportunity to feed back from the Tigard system into the Lake Oswego system to provide some backup. That connection existed now at a very limited capacity, and it would have to be resized for capacity. Theoretically there was redundancy by an existing connection, but it was a very low capacity and was not configured to operate that way. Under this scenario it would be a small effort to ensure flow in either direction to meet both communities' needs. There was redundancy and additional capacity that lowered operational risks. There was still 6 mgd of junior water rights left on the table. This scenario did not meet all of Tigard's needs into the future.

**Councilor Groznik** explained that the water was not being lost; it was going to a different use. He had some problems with the terminology.

**Mr. Knudsen** continued with scenario #4 of 38 mgd. This was similar to the previous scenario and would provide 14 mgd of firm supply to Tigard and meet Lake Oswego's long term demands of 24 mgd. Tigard would assume an ownership position, and the costs would be shared. The redundancy improved with the additional capacity between the two systems. All existing water rights were committed and met all but a very small portion of Tigard's needs. They did not go beyond that because the water rights did not exist to be able to provide all the water under the planning scenario to meet both Tigard's and Lake Oswego's ultimate needs.

**Councilor-elect Buehner** asked if there were any thoughts about the long-term viability of the water rights.

**Mr. Knudsen** replied there was some vulnerability as other development occurred in the Clackamas Basin. A junior water right was conceivably susceptible to curtailment in the future.

**Mayor Hammerstad** said if every water supplier along the Clackamas River were to use their senior and junior water rights to their maximum, were their enough water rights to satisfy the in stream water rights, or would the Water Master step in and curtail that usage by all of the suppliers? She was curious about the water rights of all the other providers on the Clackamas and where that put Lake Oswego.

**Mr. Knudsen** responded the basis of the water rights was first in time. Lake Oswego had a more senior right than others based on the filing date so was protected. The last person with the last water right would be the first one asked to curtail. The significance of junior and senior was based on the filing for the in stream right. The priority would be the senior rights, in stream rights, with the junior rights being the most vulnerable. They had taken a close look at all the users and the rights along the Clackamas River. Basically, it looked like the River was fully allocated which meant that between the existing junior rights, in stream rights, and senior rights there was no additional water left on the Clackamas River. It all depended on what happened in any given year with the weather, so potentially junior rights could be impacted by the Water Master's asking for some curtailment.

**Mayor Hammerstad** was more concerned about growth in Damascus and Happy Valley. Would they be in a position of using water rights superior to Lake Oswego's and where would that leave Lake Oswego?

**Mr. Komarek** replied Lake Oswego's senior water right was fourth in line from the most senior rights on the River. South Fork Water Board held the most senior rights, and CRW had one senior to the in stream right but junior to Lake Oswego's. The sum total of South Fork was about 75 cfs.

**Councilor Graham** asked with all the concerns and development on the east side if conservation efforts would be instituted.

**Mr. Komarek** replied that in order to have access to undeveloped water one had to demonstrate to WRD that everything to which one had access was being used wisely before further access was granted. That was part of the Water Management and Conservation Plan requirement. Lake Oswego had to demonstrate that the 16 mgd was being managed and conserved to the best of the City's ability before asking for more. The City submitted its extension plan and will provide the management plan early next year.

**Councilor Graham** hoped that Lake Oswego users would buy into that program. She asked for an explanation of Water Master.

**Mr. Knudsen** said WRD was responsible for management of the state's waters. One of its roles was to ensure that everyone holding water rights were not taking more than what was allocated under the permit. The Water Master was responsible for ensuring the law was followed.

**Mr. Komarek** added that there were District Water Masters who were called upon to adjudicate the use of water rights under low flow conditions.

**Mayor Dirksen** heard concerns about new development on the east side that would possibly curtail of existing water rights. He asked if newer development and the water rights going along with that would be junior to those already in place. Was it possible that water rights could be transferred to someone else?

**Mr. Knudsen** replied generally not. However, some of those entities had senior water rights. Damascus, Happy Valley, and Sunrise Water Authority did not happen to be any of those entities. The water rights were still limited to a certain mgd. Just because they were senior did not mean they could get more. There was really no more water on the Clackamas River.

**Councilor Harding** asked the unused water rights of the senior holders. What was the capacity they could tap into?

**Mr. Komarek** had that data but had not brought it with him. Lake Oswego for example had more than 50% of its total unused. South Fork Water Board probably had at least 50% of its authorized use undeveloped.

**Councilor-elect Johnson** thought the City was working on the assumption that the senior water rights were secure. How great would the impact need to be to affect Lake Oswego's senior water right.

**Mr. Komarek** did not believe that was known at this time. If one looked at it in terms of permits rather than population, then only so much could be taken from the River. When one talked about how the Water Master might adjudicate permits on the River, then in a worst case scenario where everyone was using their permits South Fork would be protected first then Lake Oswego and on down the line. Those with junior permits would be subject to restrictions because of in stream rights.

**Mr. Prosser** heard a lot of interest in getting more information on water rights. There were a number of technical reports available through the public works departments.

**Councilor Groznik** asked the ranking of Lake Oswego's junior water right.

**Mr. Komarek** said the priority date was 1973, and there were a few permit holders on the river with permits senior to that.

**Mr. Koellermeier** commented this was an interesting issue, and some of the other entities on the Clackamas River were actually investing millions of dollars developing their junior rights. They were betting that by having the infrastructure in place they would be better off when the day came that there was not enough water for everyone.

**Councilor Groznik** asked if the sum of the senior water rights and perhaps duty rights equaled the present flow of the Clackamas River.

**Mr. Komarek** explained right now total municipal permits on the river totaled between 290 and 300 cfs. About 210 cfs of those permits were senior to the in stream right. Last summer the municipal permit holders used a total of about 110 cfs on a peak day. If one looked at last year as an example, one would not say the Clackamas River was over allocated. There was enough water to support the in stream right plus the municipal diversions. That could vary with the year. On average the River flow was from 750 cfs to 1,000 cfs. The in stream right went from 400 cfs part of the year to 640 cfs between September 15 and July 1. Even if more water rights were allocated they would be potentially worthless except during very high flows.

**Mr. Worth** said early in the project a cross section of policy makers was interviewed to determine what information was needed and to identify shared values and principles. In general the policy makers were interested, open-minded, and hopeful that some solution might be found. Cost was one of the main issues. Everyone was willing to look at the proposal because it was evident what motivated the other jurisdictions. They also heard questions about the timing of public involvement. The results of the stakeholder interviews were fashioned into values and principles that captured the collective guidance. Mr. Worth reviewed the statements. Secure Lake Oswego's and Tigard's water future ensuring both communities can meet their long-term growth needs. Demonstrate cost savings and favorable rates when compared with other supply options. Retain or obtain ownership interest in long-term drinking water resources. Retain and perfect Lake Oswego's full Clackamas River water rights. Design the Lake Oswego/Tigard partnership to offer parity, fairness, balance. Develop redundant water resources for backup and emergencies. Promote equitable distribution of natural resources throughout the region. Communicate openly with policy makers and the public education them on the communities' current water sources, water system assets including water rights, future infrastructure needs, and various supply options. Nurture cooperation among Lake Oswego, Tigard, and surrounding communities that is beneficial to drinking water and other public services. Expand Lake Oswego's and Tigard's leadership in regional water supply decision making.

**Councilor-elect Buehner** asked what kind of control West Linn had in terms of expanding the water treatment plant.

**Mr. Komarek** replied some improvements were made to the plant about five years ago, and Lake Oswego had to go through a condition use process. It was in a neighborhood, but the zoning would allow for an expansion of the plant facility subject to conditional use approval.



**Commissioner Scheiderich** asked if Lake Oswego had considered other supply options, and the response was that Lake Oswego was concentrating on its rights on the Clackamas River.

**Commissioner Carroll** asked if Lake Oswego had ever considered relocating its treatment plant.

**Mr. Komarek** replied Lake Oswego was asked that question during the last process with West Linn, and there were some people interested in having the plant go away. No suitable relocation site had been identified because it was tied to the intake site.

**Mr. Knudsen** said that was one of the first questions he had asked since it seemed like a viable concept. Staff took a cursory look and confirmed there was not really another good place. Part of the expansion envisioned to accommodate those demands could be done on the current plant site and in the current footprint to minimize the community impact.

**Councilor Groznik** asked if a conditional use permit were needed if the improvements could be done in the existing footprint.

**Mr. Komarek** replied there would be new facilities on site. Lake Oswego owned a little over six acres, so it looked at least preliminarily that the plant could be expanded to meet the ultimate treatment capacity of the City's total rights.

**Councilor Graham** thought the values and principles glaringly did not include conservation.

**Councilor Wilson** heard two engineers loosely refer to ownership. He understood the water rights could not be sold, but for Tigard the ownership question was a very high priority. Tigard had at least four options for water, so the degree of security in that ownership factored very high.

**Mr. Koellermeier** responded he had not wanted to get hung up on the term 'ownership' because there were different ways to get there. From Tigard's perspective ownership had to do with long-term security and the ability to use SDCs. That would be addressed during the governance discussion.

**Commissioner Carroll** suggested that 'equity partner' might be a better term.

**Councilor Harding** said that while the values and principles were all good, the usage charts showed that Tigard would not get its total use out of the Clackamas River venture. She found the breakdown confusing and the charts unclear, partly because Tigard did not have a lot of buildable land. All of Tigard's needs would not be met by one source.

**Mr. Knudsen** addressed preliminary results from the technical analysis. Key system components were the Clackamas River intake, the raw water pipeline, the treatment plant, finished water pipeline, Waluga Reservoir, and the Bonita pump station. The pump stations associated with the raw water intake and treatment plant needed to be upgraded. A pump station would also be needed to get the water into the Tigard system. These would not be new pump stations, but they could significantly add to the capacity of the existing pump station. He outlined the intake component needs based on the four scenarios. At the intake in the 16 mgd scenario #1 some upgrading was required to the physical structure and pump capacity increased. Overall the structure could accommodate it, and the screen area was large enough to make this work. In the 24 mgd scenario #2 the pumps would need to be increased, and the pump station would have to be modified. At 32 mgd it became cheaper to build a new intake than to try to rehabilitate and modify the existing intake to handle the capacity. Similarly at 38 mgd a new intake on the Clackamas would be required.

He addressed the 27-inch diameter raw water pipeline that was currently sized to handle 16 mgd. It could carry more water with additional pressure but at the expense of using more energy. In the long-term investment it was better to replace the pipeline. At 24 mgd it would need to be replaced with 36-inch diameter pipe and 42-inch pipe for 32 mgd and 38 mgd. In all of these cases he assumed the new pipe would take all the capacity of the scenario, and the existing pipe could be used as a back up.

At 16 mgd the treatment plant was at capacity; however, there were some shortcomings with the plant. The discharge pumps needed to be upgraded to increase the pumping capacity and reliability of the pump station. The surge suppression tank needed to be replaced at a large capital cost in any scenario. Scenarios 2 through 4 generally involved expanding the plant within the current plant site. He concluded that conventional treatment made the most sense and was the most cost effective long-term solution. It was possible to get the expanded plant up to 38 mgd on the current six-acre plant site with a fairly compact layout.

The finish water pipe was currently capable of handling the 16 mgd, so no significant improvements would be required. A lot of the pipe was in good shape and had the capacity to handle the 24 mgd. There were segments that would need to be paralleled to provide additional capacity. As the mgd increased there would need to be additional, larger parallel pipes.

**Mr. Knudsen** addressed the storage facility. Depending upon other storage in the system one might be able to avoid adding more storage at Waluga. In the 32 and 38 mgd scenarios there were high flows going to Tigard, so a lot of water was going through this site to the pump station. A wide spot in the pipe was needed to change the flow rate and run the treatment plant at a fairly constant rate and provide operational flexibility.

Finally, the Bonita Road pump station under the 16 and 24 mgd scenarios would work because there was relatively limited capacity going to Tigard. There might be some minor upgrades at limited capital cost as compared to the 32 and 38 mgd scenarios. In those cases it would be necessary to replace the pump station likely at its current site because of the hydraulics and physical layout.

**Mr. Knudsen** summarized. Each component was run through the different supply scenarios. At 24 mgd to meet Lake Oswego's ultimate demand there were significant system improvements required. Those were essentially the same system improvements required to be able to expand to serve Tigard. Going back to the demand projection graphs and given the limitations, one saw at 16 mgd Lake Oswego would go over the line in about 2009, and at the end of the line was the basis for the 24 mgd scenario. To serve Tigard with a system capacity of 32 mgd, the line was crossed about 2020. Under the 38 mgd scenario the line would be crossed in about 2035. The construction time table for the 32 and 38 mgd scenarios would be more than three but less than five years including design.

**Mayor Hammerstad** asked Mr. Knudsen if he had looked at the capacity of other intakes such as South Fork which was less than 10 years old. Did they have excess capacity?

**Mr. Knudsen** said there was additional capacity available at that intake, but the challenge would be to get it down and across the River. By the time Lake Oswego bought into a share of the capacity, upgraded the facility to increase available capacity, and built the raw water pipeline to connect to the existing system the cost would be about the same as building a new intake.

**Mayor Hammerstad** challenged that Lake Oswego's intake was within a mile of the mouth of the Clackamas River and downstream from the other intakes and perhaps a wastewater treatment plant. If Lake Oswego did go in with another intake farther up the River, there might be less treatment. She would like to know the relationship of cost under the scenarios of building a new intake versus building the transmission pipes.

**Mr. Knudsen** would provide information. From an environmental standpoint there was value in being at the lower end because the water stayed in the River a longer period of time. However, water taken out above was not available downstream. From an environmental and permitting standpoint, the state liked it when water was taken out further downstream even though one was more vulnerable. The next step would be to address the costs of the various scenarios and what that meant in terms of the aggregate alternatives particularly for Tigard as compared to other alternatives. Once those were determined the numbers would be crunched into what that meant in terms of rates. Some assumptions would be made as to how Lake Oswego would be compensated for existing infrastructure and how costs were shared. These assumptions would be

a starting point for discussions. He would prepare a draft report to share with staff and the policy makers for direction.

**Councilor Wilson** said in looking at the graphs from Lake Oswego's eyes going along with 24 mgd the City would be good for 40 years. Almost as much money would be spent as scenario #3, but it could be amortized over 40 years. The green option was obsolete almost the day it opened. He asked if the projections were accurate. He suggested researching the relationship between lot size and per capita consumption. The per capita projection might actually go down.

**Councilor-elect Jordan** asked how Stafford build out was considered as one of Lake Oswego's wholesalers.

**Mr. Knudsen** replied it was essentially treated the same as the rest of the service area based on zoning which resulted in a population of 7,000.

**Councilor-elect Jordan** asked if the City currently owned property next to the Waluga Reservoir.

**Mr. Knudsen** replied that it did.

A participant asked when water rights might conceivably be lost.

**Mr. Komarek** responded there was no answer at this time. He did not know of a case in which a municipal water provider relinquished its rights or had been challenged by a third party.

**Commissioner Carroll** thought the intent of the legislature was to move people in this direction. There were areas like Tigard that did not have adequate water supplies, and they were trying to push the 'haves' together with the 'have nots.'

**Councilor Groznik** did not see public participation mentioned in the next steps and did not understand how a policy decision could be formulated by February.

**Mr. Worth** replied public participation was an open question. Everyone mentioned public education because of the project's complexity. One of the leading questions was when that process should begin. One view was that it should wait until there was actually something to tell the public. Another was that the public education piece should start right away because it was so complicated. One question was how the policy makers felt about those views, and another was where the priority should be. He provided a draft public outreach strategy that tried to harness the suggestions gathered during the interview process.

**Councilor Groznik** thought the process should have already started because there were groups in Lake Oswego who were already concerned. The public was already talking about a number of major infrastructure improvements.

**Councilor-elect Buehner** was concerned about going public before there was much information.

**Councilor-elect Jordan** said one of the biggest concerns was that this was an infrastructure problem for Lake Oswego and Tigard that existed no matter how it was solved. The public needed to know the problem existed, and it needed to be kept out in the open.

**Councilor McPeak** commented that the Lake Oswego Council was just coming up to speed. After the next work shop they might be able to narrow down the options into workable sets of ideas to handle public discussion more productively.

**Mayor Dirksen** said in the corporate world when one went to the boss with a problem one should have a solution. When the public was showed this problem there needed to be some answers.

**Councilor Groznik** did not see that as public involvement but rather as public dictation.

**Councilor Turchi** liked to have time to appreciate the complexity of problems, and he did not feel he had had sufficient time to consider this issue. He was surprised about where Lake Oswego

was in terms of its own capacity and infrastructure needs and felt he needed a greater understanding. This information needed to be available to the public. The values and principles looked good, but he had not had the time to really think about them or consider their ramifications. He did not want to be pushed to a decision too soon and wanted the public to have a chance to catch up with the Council.

**Mr. Worth** heard embedded in those comments the need to talk with fellow Councilors and discuss Lake Oswego's and Tigard's problems.

**Mayor Hammerstad** observed this was an example of starting with the recognition of a problem and working toward a solution. She had been involved in numerous activities in which problems were identified. People will say they did not know about the problem and ask why they were not included, but this was just the beginning. There were possibilities and limitations, and she thought if a public involvement process were started with the existing information that people would make up their own answers which would be the worst case scenario. Until there was more information about options and costs and responsibilities she did not think the entities were ready for public involvement. This was recognition of Lake Oswego's need to protect and perfect its water rights. Was there a way to do that and solve two entities' challenges? She did not believe there was enough information right now to take out to the public.

**Councilor Groznik** thought the public should be asked if conservation was on the table. That issue had not been addressed. The problem was being attacked with the solution of developing more water rights.

**Mayor Hammerstad** replied Lake Oswego was working on its Water Management Conservation Plan that would identify conservation measures.

**Councilor Groznik** had not seen anything about that, and the citizens have not been asked. He felt the City would be making a dramatic mistake if it did not involve the public now with what it had, and let them own the decision.

**Councilor McPeak** thought Councilor Groznik had some interesting points. However, it seemed as if more issues were being added to an already complex problem. She was concerned if other issues were added, the Council would get nowhere.

**Commissioner Winn** commented as in many things there was too much information. He looked for a simple summary of key points to address which to him was the protection of water rights. Tigard was interested in being part of Lake Oswego's efforts in a mutual way so that Tigard could have water, have some ownership, and help Lake Oswego get its capacity up. He recommended a succinct presentation to the citizens.

**Councilor Woodruff** appreciated the opportunity to meet. This issue was probably more on Tigard's radar screen because Lake Oswego did not have to worry a lot about its water source. Lake Oswego had an issue with its infrastructure. This partnership may work if Tigard can get source and Lake Oswego can get help funding infrastructure improvements. In that case constituent needs were met in both cities. It had to be a solution for both sides so the public could see it as a creative possibility that helped everyone. There would be some sticker shock when people found out how the costs, and they will ask elected officials what they had done to ameliorate the costs. There was an opportunity to do something that was very useful, but a lot of work needed to be done by both Councils.

The group commented that this workshop was helpful and recognized that additional work needed to be done in each of the jurisdictions.

**Mayor Hammerstad** thanked all parties for their perseverance and felt this was the beginning of a relationship between the entities that she hoped would result in good decisions for the constituents. The consultants and engineers presented this complex problem in a way that was understandable and encouraged future discussions. It was an opportunity to set an example for cooperative sharing of a limited resource.

**Mayor Dirksen** felt this problem was being addressed in a timely manner so action could be taken before 90% capacity was reached. It was clear this was only a first step and that the policy makers would need to have many more discussions. Some questions were answered while others were raised. It was clear to him another round table such as this was needed in the near future, and offered Tigard as the venue.

#### **4. ADJOURNMENT**

**Mayor Hammerstad** adjourned the meeting at 9:10 p.m.

Respectfully submitted,

Robyn Christie /s/  
Robyn Christie  
City Recorder

APPROVED BY THE CITY COUNCIL:  
ON January 22, 2007

Judie Hammerstad /s/  
Judie Hammerstad, Mayor